

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 01032231
 PUBLICATION DATE : 02-02-89

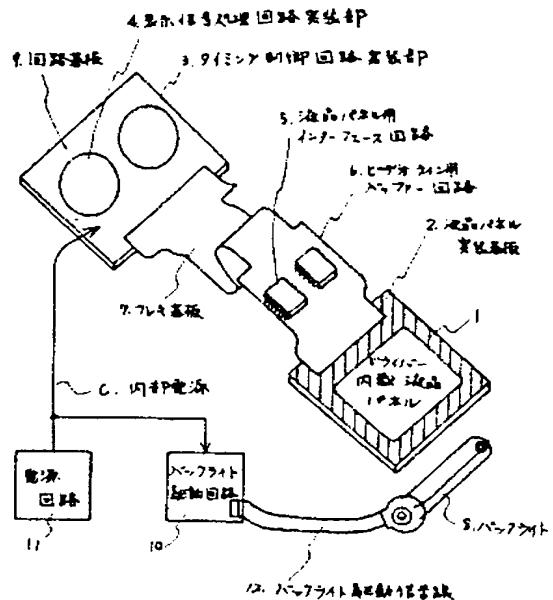
APPLICATION DATE : 29-07-87
 APPLICATION NUMBER : 62189152

APPLICANT : SEIKO EPSON CORP;

INVENTOR : KURANE HARUHISA;

INT.CL. : G02F 1/133 G09F 9/35

TITLE : PACKAGING STRUCTURE FOR LIQUID CRYSTAL DISPLAY DEVICE



ABSTRACT : PURPOSE: To reduce electric power consumption and to miniaturize a circuit board by packaging at least either of an interface circuit and video line buffer circuit to a flexible substrate which transmits signals to a packaging substrate.

CONSTITUTION: A driver-contg. liquid crystal panel 1 is packaged to the liquid crystal panel packaging substrate 2. A timing control circuit 3 and a display signal forming circuit 4 are packaged on the circuit board 9. The output signals from the circuit board 9 are sent to the flexible substrate 7. The interface circuit 5 and the buffer circuit 6 for video lines are packaged on the substrate 7. The signals processed by the circuits 5 and 6 are sent to the panel 1. Displaying is executed by these signals. The load capacity of the panel 1 viewed from the output stage of the circuits 5 and 6 is thereby decreased as the capacity of the substrate 7 is negligible. Since the number of the circuits to be packaged on the circuit board 9 is decreased, the circuit board 9 is reduced in size.

COPYRIGHT: (C)1989,JPO&Japio